WHAT IS CLAIMED IS:

1. A method comprising:

configuring a first device to communicate wirelessly;

configuring a second device to communicate wirelessly, wherein either the first device or the second device includes an implantable medical device;

powering a first transmitter and a first receiver of the first device for a first time window;

repeatedly transmitting a digital key at each of a plurality of first wakeup intervals;

monitoring for a response using the first receiver;

powering a second receiver of the second device for a second time window;

while powering the second receiver, receiving the digital key at one of a plurality of second wakeup intervals;

powering a second transmitter of the second device;

transmitting the response using the second transmitter based on receiving the digital key;

establishing a communication session between the first device and the second device; and

returning the first transmitter, the first receiver, the first transmitter and the second receiver to a quiescent mode after the communication session.

2. The method of claim 1 further comprising configuring the first device to operate as a master and configuring the second device to operate as a slave.

3. The method of claim 1 further comprising synchronizing one of the plurality of first wakeup intervals with one of the plurality of second wakeup intervals.

4. The method of claim 3 wherein synchronizing includes transmitting a timestamp using the first transmitter and receiving the timestamp using the second receiver.

5. The method of claim 4 further comprising adjusting the second wakeup interval.

6. The method of claim 3 wherein synchronizing includes transmitting a timestamp using the second transmitter and receiving the timestamp using the first receiver.

7. The method of claim 6 further comprising adjusting the first wakeup interval.

8. The method of claim 3 wherein synchronizing includes aligning a wakeup interval with a start of a message.

9. The method of claim 3 wherein synchronizing includes setting a wakeup interval to a predetermined value during the communication session.

10. The method of claim 3 wherein synchronizing includes receiving a magnetic signal and setting a wakeup interval to a predetermined value upon receiving the magnetic pulse.

11. The method of claim 10 wherein receiving a magnetic signal includes detecting a change in a magnetic field strength.

12. The method of claim 10 wherein receiving a magnetic signal includes detecting a change in a magnetic field alignment.

13. The method of claim 10 wherein receiving a magnetic signal includes detecting a predetermined magnetic field strength.

14. The method of claim 3 wherein synchronizing includes setting a wakeup interval based on receiving an inductively coupled signal.

15. The method of claim 1 further comprising beginning each first time window before beginning a corresponding second time window.

16. The method of claim 1 further comprising ending each first time window after ending a corresponding second time window.

17. The method of claim 1 further comprising increasing the first time window based on an elapsed time since a previous communication session.

18. The method of claim 1 further comprising adjusting the first time window based on an amount of drift since a previous communication session.

19. The method of claim 1 wherein conducting a communication session includes communicating with a cardiac rhythm management device.

20. The method of claim 19 further comprising reducing the first wakeup interval and reducing the second wakeup interval upon detecting an arrhythmia.

21. The method of claim 19 further comprising reducing the first wakeup interval and reducing the second wakeup interval upon detecting a low battery condition.

22. The method of claim 19 further comprising reducing the first wakeup interval and reducing the second wakeup interval upon detecting a changed lead impedance.

23. The method of claim 19 further comprising adjusting the first wakeup interval and adjusting the second wakeup interval upon receiving an instruction from a clinician.

24. The method of claim 1 wherein transmitting the digital key includes transmitting the digital key tailored to a particular implantable device.

25. The method of claim 1 wherein transmitting the response includes waiting a pseudo-random time delay.

26. A method comprising:

powering a first transmitter and a first receiver of a first device for a first time window;

repeatedly transmitting a digital key at each of a plurality of first wakeup intervals;

repeatedly monitoring for a response using the first receiver, the response based on the digital key; and

after repeatedly transmitting and repeatedly monitoring for a predetermined period of time, performing a non-synchronized receiver search.

27. The method of claim 26 further including terminating the repeatedly transmitting and repeatedly monitoring after a programmable non-synchronized search interval.

28. A method comprising:

continuously powering a device circuit of an implantable medical device;

continuously powering a near field communication link coupled to the device circuit;

powering a far field receiver coupled to the device circuit according to a first duty cycle; and

transmitting an acknowledgment signal upon receiving a wireless command.

29. The method of claim 28 wherein receiving a wireless command includes receiving a wake up signal using the near field communication link and wherein transmitting an acknowledgment includes transmitting a signal using the near field communication link.

30. The method of claim 28 wherein receiving a wireless command includes receiving a wake up using the far field receiver and wherein transmitting an acknowledgment includes transmitting a signal using a far field transmitter coupled to the device circuit.

31. The method of claim 28 wherein continuously powering a device circuit includes continuously operating a cardiac rhythm management circuit.

32. The method of claim 28 further comprising powering the far field receiver upon receiving a signal via the near field communication link.

33. The method of claim 28 further comprising powering the far field receiver according to a second duty cycle upon receiving a wireless signal.

34. The method of claim 33 wherein receiving a wireless signal includes receiving a wireless signal via the near field communication link.

35. The method of claim 28 further comprising powering the far field receiver according to a second duty cycle based on a signal received from the device circuit.

36. A device comprising:

a processor executing a program adapted to communicate data with an implantable medical device;

a far field communication link coupled to the processor; and

a duty cycle controller coupled to the far field communication link and adapted to operate the far field communication link in a manner compatible with a duty cycled implantable medical device.

37. The device of claim 36 wherein the duty cycle controller is adapted to operate the far field communication link continuously.

38. The device of claim 36 wherein the duty cycle controller is adapted to operate the far field communication link at a duty cycle that matches the duty cycle of the implantable medical device.

39. An implantable medical device comprising:

a processor executing a program adapted to communicate data with an external programmer;

a far field receiver coupled to the processor; and

a duty cycle controller coupled to the far field receiver and adapted to power and unpower the far field receiver according to a first duty cycle.

40. The device of claim 39 further comprising a far field transmitter.

41. The device of claim 39 wherein the duty cycle controller is adapted to power and unpower the far field receiver according to a second duty cycle.

42. The device of claim 39 wherein the duty cycle controller is adapted to synchronize based on a received signal.

43. The device of claim 39 further comprising a near field link coupled to the processor.

44. The device of claim 43 wherein the duty cycle controller is adapted to synchronize based on a signal received using the near field link.

45. The device of claim 39 wherein the duty cycle controller is adapted to operate the far field receiver substantially continuously.

46. The device of claim 39 wherein the duty cycle controller is adapted to operate the far field communication link at a duty cycle that matches a duty cycle of an external programmer.